DEPARTMENT OF THE NAVY
NAVY PUBLIC WORKS CENTER
AND
ENGINEERING FIELD ACTIVITY, MIDWEST
BUILDING 1-A
2703 SHERIDAN ROAD, SUITE #120
GREAT LAKES, ILLINOIS 60088-5600

5090
Ser N45/ 000535
08 OCT 1997

Donald Harrison
Remedial Project Manager
Illinois Environmental Protection Agency
Bureau of Land - Division of Remedial Management
Remedial Project Management Section - Federal Facilities Unit
2200 Churchill Road
Springfield, Illinois 62794-9276

Subj: CERTIFICATION OF NON-HAZARDOUS, NON-SPECIAL WASTE FOR PETROLEUM CONTAMINATED SOIL AT BUILDING 11 AND 103; PURSUANT TO SECTION 808 OF ILLINOIS ADMINISTRATIVE CODE TITLE 35

Dear Mr. Harrison:

Naval Training Center (NTC), Great Lakes, Illinois is certifying through this letter that the proposed waste described within enclosure (1) does not meet the criteria for a hazardous waste (toxicity, corrosivity, iginitability and reactivity), is not a liquid waste, does not contain asbestos, polychlorinated biphenyl's (PCBs) or auto fluff.

Generated waste is a result of a leaking underground storage tank (UST) removal project. The underground storage tanks were utilized throughout their service life to contain only petroleum products (gasoline, #2 diesel fuel and kerosene). Petroleum product from the UST's has leaked from the tanks and/or piping over their service life and contaminated the surrounding soil.

Provided in enclosure (1) are site and vicinity maps, drawings, historical data and analytical results to verify that the subject waste can be characterized as ordinary municipal waste pursuant to 35 IAC Section 808 are also included.

The waste (soil) is to be transported to the old Firefighting Training Unit (FFTU) site within Willow Glen golf course. This property is also Federal/Navy property and is being used as a biopile site for passive bioremediation of petroleum contaminated soils, such as the subject waste. Approximately 1,000 cubic yards (CY) of petroleum contaminated soil will be transported from Buildings 11 and 103 to the FFTU site for bioremediation.

Subj: CERTIFICATION OF NON-HAZARDOUS, NON-SPECIAL WASTE FOR PETROLEUM CONTAMINATED SOIL AT BUILDING 11 AND 103; PURSUANT TO SECTION 808 OF ILLINOIS ADMINISTRATIVE CODE TITLE 35

Please contact Mr. Terry Aide or J.P. Messier at (847) 688-5999 extension 44 or 51, respectively if there is any additional information you may want on this matter.

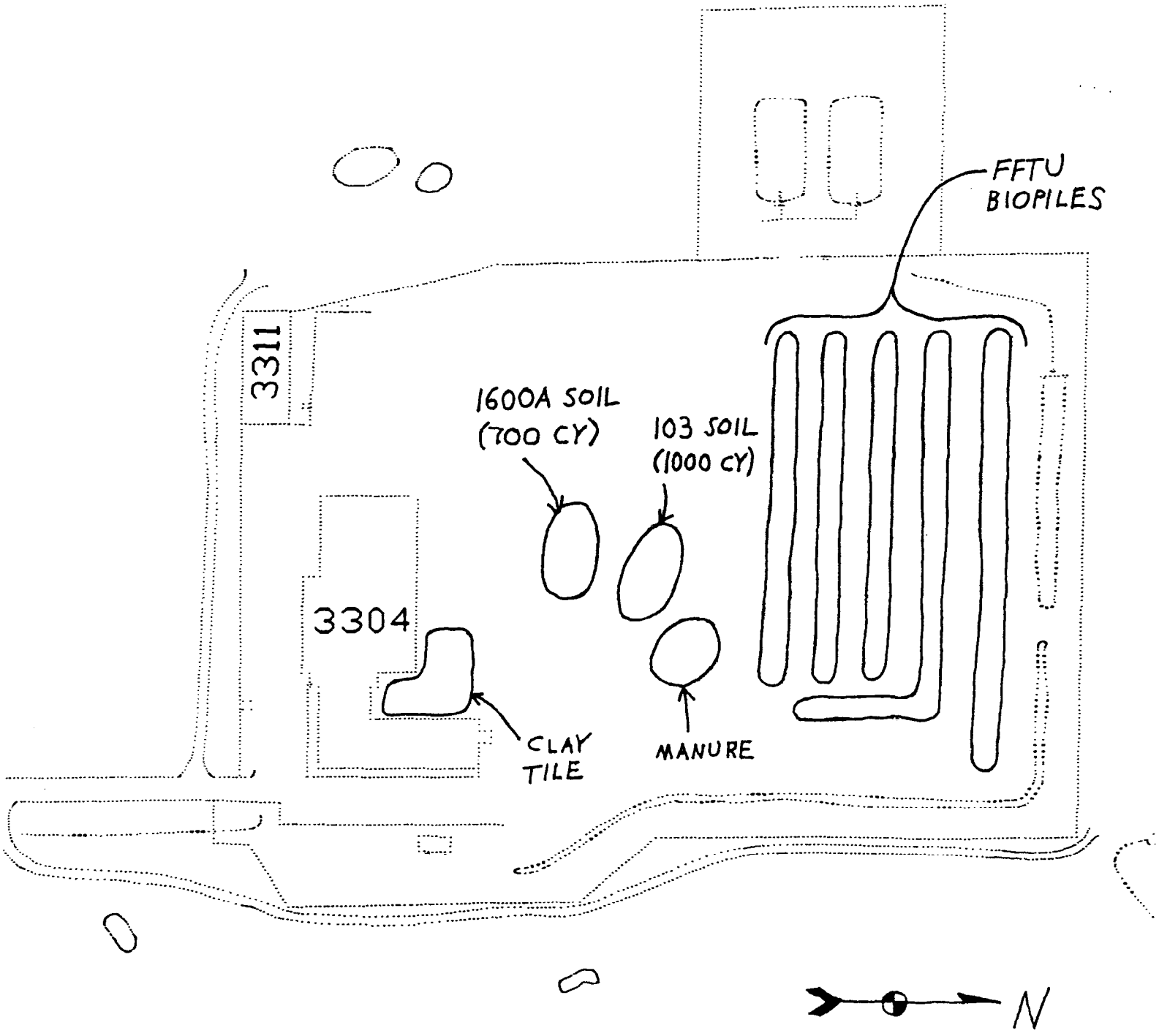
Sincerely,

Mark Schultz

MARK SCHULTZ
Environmental Officer
By direction of
the Commanding Officer

Enclosure (1): Project Information

FFTU


FFTU
BIOPILES
3311
1600A SOIL
(700 CY)
103 SOIL
(1000 CY)
3304
CLAY
TILE
MANURE
N

POINT PAPER

JP Messier/Terry Aide
N45/(847) 688-5999
3 Oct 97

Subj: Buildings 11, 103 and 1600A - Petroleum Impacted Soil Disposal Certification Pursuant to the Illinois Environmental Protection Act and 35 IAC Section 808

BACKGROUND

A recent Amendment passed August 19, 1997 to the Illinois Environmental Protection Act allows for the disposal of pollution prevention waste as a municipal landfill waste as long as it has been proven to be a non-hazardous solid waste.

The intent of this point paper is to act as the certifying document for disposal of pollution prevention waste created as a result of release from underground petroleum-containing storage tanks at Buildings 11, 103 and 1600A on the Naval Training Center, Great Lakes, Illinois.

HISTORY AND DISCUSSION

Building 11 is the Navy Public Works Center power plant. Part of its operation utilized a MUSE backup generator with a 2,000 gallon fiberglass diesel UST. Last year, a new generator and AST rendered the MUSE generator and tank obsolete. The UST is scheduled to be removed on October 7-8, 1997. Petroleum contamination may be encountered in the area when the tank is removed.

Building 103 served as the Great Lakes Gas Station during the first half of the century. A historical photograph from 1939 shows cars being fueled at the station (enclosed). The gasoline station was shut down many years ago and there were no records showing the tanks being removed. A magnetometer survey and interviews with older employees verified the existence of three (3) underground gasoline tanks (approx. 10,000 gallons each), one (1) diesel heating tank (approx. 12,500 gallons) and one (1) kerosene tank (approx. 1,000 gallons). Results of the survey are enclosed. These USTs are scheduled to be removed on October 7-8, 1997. Petroleum contamination is expected to be encountered when these tanks are removed.

The Building 1600A Gas Station served as the gas station for the Navy Public Works Center, Great Lakes until August, 1997. It contained two (2) underground gasoline storage tanks (10,000 gallons each) and one (1) underground diesel tank (6,500 gallons). When the tanks and fuel dispensers were recently removed, petroleum contamination was found throughout the area.

Subj: Buildings 11, 103 and 1600A - Petroleum Impacted Soil Disposal Certification Pursuant to the Illinois Environmental Protection Act and 35 IAC Section 808

ACTION

The Great Lakes Environmental Department certifies that only petroleum products (gasoline, diesel and kerosene) were stored in the underground tanks at these sites. All tanks and piping (fuel, vent and electrical) will be excavated and removed from these sites along with concrete, asphalt and other debris. Petroleum contaminated soils will be removed until cleanup objectives are met or until structures not slated for demolition have the potential to be impacted.

A composite soil characterization sample will be collected from areas of visibly stained soils at each site. Each composite sample will consist of samples taken from observed contaminated regions from each of the following: One from each tank wall (four total), two from the tank floor, and one for every ten feet of piping run. All samples will be collected and analyzed utilizing the sampling, custody and analytical procedures outlined in the Fire Fighting Training Unit (FFTU) Quality Assurance Project Plan (QAPP), written by Beling Consultants (August 1997).

An analysis for petroleum contaminated soils from the building 1600A site is enclosed. The composite sample was taken using the procedures referenced above. Results show that the soil is neither a hazardous waste or a special waste. Composite samples from both the building 103 and 11 sites will be analyzed for BTEX, PNA/PAH in addition to the same items shown on the building 1600A analysis. Petroleum contaminated soil from these sites do not meet the criteria for a hazardous waste, is not a liquid waste, does not contain asbestos, polychlorinated biphenyl's (PCBs) or auto fluff. If the analysis verifies that the petroleum contaminated soils are neither hazardous or a special waste, the soil will then be taken to the FFTU site within Willow Glen golf course. This property is also Federal/Navy property and is being used as a biopile site for passive bioremediation of petroleum contaminated soils.

Petroleum contaminated soils will be placed directly in transport trucks for transport over to the FFTU site at building 3304. Each load will be internally documented with a bill of lading that includes a description of the location where soil was removed from each site. Excavated soil will be stockpiled and segregated at the FFTU for biopile construction.

Biopiles will be constructed in accordance with the Fire Fighting Training Unit (FFTU) Revised Workplan for Excavation of Drainage Piping, and Field Pilot Study for Bioremediation of Petroleum Contaminated Soil, written by Beling Consultants (July, 1997).

Subj: Buildings 11, 103 and 1600A - Petroleum Impacted Soil Disposal Certification Pursuant to the Illinois Environmental Protection Act and 35 IAC Section 808

Operation and Maintenance of the biopiles to track progress toward compliance with the Tiered Approach to Corrective Action Objectives (TACO) standards found in 35 IAC 742 will also be done in accordance with the Fire Fighting Training Unit (FFTU) Revised Workplan for Excavation of Drainage Piping, and Field Pilot Study for Bioremediation of Petroleum Contaminated Soil, written by Beling Consultants (July, 1997).

RECOMMENDATIONS AND CONCLUSIONS

All soil pursuant to the excavation at buildings 11, 103 and 1600A will be certified as both a non-hazardous and non-special waste in accordance with requirements set forth by the Illinois Environmental Protection Act. This will be fully proven by laboratory analysis of the waste stream for all of the RCRA hazardous constituents (toxicity, ignitibility, reactibility and corrosivity).

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
847-967-6666
FAX 847-967-6735

LABORATORY REPORT

171011

Heritage Environmental Services, Inc.
15330 Canal Bank Road
Lemont, IL 60439

Report Date: 10/7/97
Sample Received: 10/1/97
Date Sampled: 9/30/97

Project No.: 9660
Project Name: Building 103
Sample Description: Soil Grab - Building 103
Sample No.: 23697

Analyte	Result	Date Completed	By	Method
Ash content	80.1%	10/06/97	SS	2540E(2)
Water Compatibility	NO REACTION SINKS	10/02/97	DM	D5058-90(21)
Total Cyanide	<2.00	10/02/97	AG	9010A(6)
Open Cup Flash Point	>180.°F	10/02/97	DM	D92-90(21)
Odor of sample	NONE	10/02/97	DM	D4979-89(21)
Paint Filter	PASS	10/02/97	DM	9095(6)
Total Phenolics	<1.00	10/02/97	AG	9065(6)
Physical Appearance	ROCKY BROWN CLAY AND SAND	10/02/97	DM	D4979-89(21)
Total Solids	85.3%	10/06/97	SS	2540B(2)
Reactive Sulfide	33.2	10/02/97	RG	7.3.4(6)
pH (10% Solution)	8.61 units	10/02/97	DM	9045(6)
Analysis Performed on TCLP Extract				
Arsenic	<0.200	10/02/97	MG	6010A(6)
Barium	<0.50	10/02/97	MG	6010A(6)
Cadmium	<0.004	10/02/97	MG	6010A(6)
Chromium	<0.10	10/02/97	MG	6010A(6)
Copper	<0.10	10/02/97	MG	6010A(6)
Lead	0.13	10/02/97	MG	6010A(6)
Mercury	<0.00009	10/02/97	ML	7470A(6)
Nickel	<0.10	10/02/97	MG	6010A(6)
Selenium	<0.200	10/02/97	MG	6010A(6)
Silver	<0.20	10/02/97	MG	6010A(6)
Zinc	1.87	10/02/97	MG	6010A(6)

All results expressed as ppm unless otherwise indicated

Note on pH (10% Solution):RESULT IS AN AVERAGE OF THREE. SAMPLE IS HETEROGENEOUS.
Note on Lead on TCLP:THE ANALYTICAL RESULT IS >LOD AND <LOQ.

(2) Analysis performed using "Standard Methods for the Examination of Wastewater",19th Edition
(21) Analysis performed using ASTM Method
(6) Methods performed according to SW-846 "Test Methods for Evaluating Solid Waste"

Danny W. Wright

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
847-967-6666
FAX: 847-967-6735

LABORATORY REPORT

171011-A

Heritage Environmental Services, Inc.
15330 Canal Bank Road
Lemont, IL 60439

Report Date: 10/7/97
Project No.: 9660 Sample Received: 10/1/97
Project Name: Building 103 Date Sampled: 9/30/97
Sample Description: Soil Grab - Building 103
Sample No.: 23697

Reportable Compound PNA'S and Naphthalene	Concentration Found IN Sample ppb	Blank ppb	ADLS Soil ppb
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	43.6	<0.13	8.7
8. Benzo(a)pyrene	26	<0.23	15
9. Benzo(b)fluoranthene	44.7	<0.18	11
10. Benzo(k)fluoranthene	14.1	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zehren

LABORATORY DIRECTOR

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203
847-967-6666
FAX: 847-967-6735

LABORATORY REPORT

171011-B

Heritage Environmental Services, Inc.
15330 Canal Bank Road
Lemont, IL 60439

Report Date: 10/7/97
Sample Received: 10/1/97
Date Sampled: 9/30/97

Project No.: 9660
Project Name: Building 103
Sample Description: Soil Grab - Building 103
Sample No.: 23697

Compounds	Concentration Found In Sample	Concentration Found In Blank	Method Detection Limit (MDL)	Regulatory Limit
1. Benzene	<0.25	<0.01	0.01	0.50
2. Carbon Tetrachloride	<0.25	<0.01	0.01	0.50
3. Chlorobenzene	<50.0	<0.01	0.01	100.00
4. Chloroform	<3.0	<0.01	0.01	6.00
5. o-Cresol	<100.0	<0.01	0.01	200.00
6. m-Cresol	<100.0	<0.01	0.01	200.00
7. p-Cresol	<100.0	<0.01	0.01	200.00
Total Cresol	<100.0	<0.01	0.01	200.00
8. 1,4-Dichlorobenzene	<3.75	<0.01	0.01	7.50
9. 1,2-Dichloroethane	<0.25	<0.01	0.01	0.50
10. 1,1-Dichloroethene	<0.35	<0.01	0.01	0.700
11. 2,4-Dinitrotoluene	<0.07	<0.01	0.01	0.13
12. Hexachlorobenzene	<0.07	<0.01	0.01	0.13
13. Hexachloro-1,3 -butadiene	<0.25	<0.01	0.01	0.50
14. Hexachloroethane	<1.50	<0.01	0.01	3.00
15. Methyl Ethyl Ketone	<100.0	<0.01	0.01	200.00
16. Nitrobenzene	<1.00	<0.01	0.01	2.00
17. Pentachlorophenol	<50.00	<0.01	0.01	100.00
18. Pyridine	<2.50	<0.01	0.01	5.00
19. Tetrachloroethylene	<0.35	<0.01	0.01	0.70
20. Trichloroethylene	<0.25	<0.01	0.01	0.50
21. 2,4,5-Trichlorophenol	<200.00	<0.01	0.01	400.00
22. 2,4,6-Trichlorophenol	<1.00	<0.01	0.01	2.00
23. Vinyl Chloride	<0.10	<0.01	0.01	0.20

All results expressed as ppm unless otherwise indicated.
Methods performed according to SW-846, "Test methods for Evaluating Solid Waste".

Analysis performed on Extract from TCLP.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

Leah E. Zehr

LABORATORY DIRECTOR